

Date of Deposit: 11/29/00



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: William Gaarde et al.

Serial No.: Not yet assigned Group No.: Not yet assigned

Filed: herewith

For: Antisense Modulation of Connective Tissue Growth Factor Expression

BOX SEQUENCE
Assistant Commissioner for Patents
Washington DC 20231

INFORMATION DISCLOSURE STATEMENT

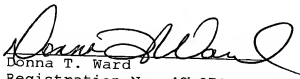
Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above identified application, no additional fee is required.

Copies of each of the references listed on the attached Form PTO-1449 are enclosed.

Date: November 29, 2001

Respectfully submitted,


Donna T. Ward
Registration No. 48,271

ISIS PHARMACEUTICALS, INC.
Carlsbad Research Center
2292 Faraday Avenue
Carlsbad, CA 92008

Date of Deposit: 11/21/2001

Form PTO-1449 Modified		Docket No. RTS-0274	Serial No. not yet assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant William Gaarde et al.	
		Filing Date herewith	Group
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
AA	Allen et al., Enhanced insulin-like growth factor binding protein-related protein 2 (Connective tissue growth factor) expression in patients with idiopathic pulmonary fibrosis and pulmonary sarcoidosis, Am. J. Respir. Cell Mol. Biol., 1999, 21:693-700		
AB	Babic et al., Fisp12/mouse connective tissue growth factor mediates endothelial cell adhesion and migration through integrin alphavbeta3, promotes endothelial cell survival, and induces angiogenesis in vivo, Mol. Cell Biol., 1999, 19:2958-2966		
AC	Boes et al., Connective tissue growth factor (IGFBP-rP2) expression and regulation in cultured bovine endothelial cells, Endocrinology, 1999, 140:1575-1580		
AD	Bradham et al., Connective tissue growth factor: a cysteine-rich mitogen secreted by human vascular endothelial cells is related to the SRC-induced immediate early gene product CEF-10, J. Cell Biol., 1991, 114:1285-1294		
AE	Duncan et al., Connective tissue growth factor mediates transforming growth factor beta-induced collagen synthesis: down-regulation by cAMP, FASEB J., 1999, 13:1774-1786		
AF	Hishikawa et al., Transforming growth factor-beta(1) induces apoptosis via connective tissue growth factor in human aortic smooth muscle cells, Eur. J. Pharmacol., 1999, 385:287-290		
AG	Hishikawa et al., Static pressure regulates connective tissue growth factor expression in human mesangial cells, J. Biol. Chem., 2001, 276:16797-16803		
AH	Hishikawa et al., Connective tissue growth factor induces apoptosis in human breast cancer cell line MCF-7, J. Biol. Chem., 1999, 274:37461-37466		
AI	Ito et al., Kinetics of connective tissue growth factor expression during experimental proliferative glomerulonephritis, J. Am. Soc. Nephrol., 2001, 12:472-484		
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified		Docket No. RTS-0274	Serial No. not yet assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant William Gaarde et al.	
		Filing Date herewith	Group
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AJ	Jedsadayanmata et al., Activation-dependent adhesion of human platelets to Cyr61 and Fisp12/mouse connective tissue growth factor is mediated through integrin alpha(IIb)beta(3), J. Biol. Chem., 1999, 274:24321-24327	
	AK	Kasaragod et al., Connective tissue growth factor expression in pediatric myofibroblastic tumors, Pediatr. Dev. Pathol., 2001, 4:37-45	
	AL	Kim et al., Identification of a family of low-affinity insulin-like growth factor binding proteins (IGFBPs): characterization of connective tissue growth factor as a member of the IGFBP superfamily, Proc. Natl. Acad. Sci. U. S. A., 1997, 94:12981-12986	
	AM	Kondo et al., Characterization of a mouse ctgf 3'-UTR segment that mediates repressive regulation of gene expression, Biochem. Biophys. Res. Commun., 2000, 278:119-124	
	AN	Kothapalli et al., Transforming growth factor beta induces anchorage-independent growth of NRK fibroblasts via a connective tissue growth factor-dependent signaling pathway, Cell Growth. Differ., 1997, 8:61-68	
	AO	Kubota et al., Involvement of cis-acting repressive element(s) in the 3'-untranslated region of human connective tissue growth factor gene, FEBS Lett., 1999, 450:84-88	
	AP	Lasky et al., Connective tissue growth factor mRNA expression is upregulated in bleomycin-induced lung fibrosis, Am. J. Physiol., 1998, 275:L365-371	
	AQ	Lau et al., The CCN family of angiogenic regulators: the integrin connection, Exp. Cell Res., 1999, 248:44-57	
	AR	Lopez-Bermejo et al., Characterization of insulin-like growth factor-binding protein-related proteins (IGFBP-rPs) 1, 2, and 3 in human prostate epithelial cells: potential roles for IGFBP-rP1 and 2 in senescence of the prostatic epithelium, Endocrinology, 2000, 141:4072-4080	
	AS	Martinerie et al., Physical mapping of human loci homologous to the chicken nov proto-oncogene, Oncogene, 1992, 7:2529-2534	
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified		Docket No. RTS-0274	Serial No. not yet assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant William Gaarde et al.	
		Filing Date herewith	Group
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AT	Moussad et al., <i>Connective tissue growth factor: what's in a name?</i> , <i>Mol. Genet. Metab.</i> , 2000 , 71:276-292	
	AU	Nakanishi et al., <i>Overexpression of connective tissue growth factor/hypertrophic chondrocyte-specific gene product 24 decreases bone density in adult mice and induces dwarfism</i> , <i>Biochem. Biophys. Res. Commun.</i> , 2001 , 281:678-681	
	AV	Pereira et al., <i>Transcriptional regulation of connective tissue growth factor by cortisol in osteoblasts</i> , <i>Am. J. Physiol. Endocrinol. Metab.</i> , 2000 , 279:E570-576	
	AW	Shimo et al., <i>Inhibition of endogenous expression of connective tissue growth factor by its antisense oligonucleotide and antisense RNA suppresses proliferation and migration of vascular endothelial cells</i> , <i>J. Biochem. (Tokyo)</i> , 1998 , 124:130-140	
	AX	Tsubaki et al., <i>Effects of sodium butyrate on expression of members of the IGF-binding protein superfamily in human mammary epithelial cells</i> , <i>J. Endocrinol.</i> , 2001 , 169:97-110	
	AY	Twigg et al., <i>Advanced glycosylation end products up-regulate connective tissue growth factor (insulin-like growth factor-binding protein-related protein 2) in human fibroblasts: a potential mechanism for expansion of extracellular matrix in diabetes mellitus</i> , <i>Endocrinology</i> , 2001 , 142:1760-1769	
	AZ	Vorwerk et al., <i>CTGF (IGFBP-rp2) is specifically expressed in malignant lymphoblasts of patients with acute lymphoblastic leukaemia (ALL)</i> , <i>Br. J. Cancer</i> , 2000 , 83:756-760	
	BA	Yang et al., <i>Identification of glycosylated 38-kDa connective tissue growth factor (IGFBP-related protein 2) and proteolytic fragments in human biological fluids, and up-regulation of IGFBP-rp2 expression by TGF-beta in Hs578T human breast cancer cells</i> , <i>J. Clin. Endocrinol. Metab.</i> , 1998 , 83:2593-2596	
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified		Docket No. RTS-0274	Serial No.
List of Patents and Publications Cited by Application (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Applicant William Gaarde et al.	
		Filing Date	Group

4973 U.S. PTO
10/06/91
12/10/01

U.S. PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Name	Class	Subclass
	AA	5,876,730	3/2/1999	Brigstock et al.	424	198.1
	AB	5,585,270	12/17/1996	Grotendorst et al.	435	252.3
	AC	5,783,187	7/21/1998	Grotendorst et al.	424	158.1
	AD	6,150,101	11/21/2000	Grotendorst et al.	435	6
	AE	6,232,064	5/15/2001	Grotendorst et al.	435	6
	AF	6,069,006	5/30/2001	Grotendorst et al.	435	325
	AG					
	AH					
	AI					
	AJ					
	AK					
	AL					
	AM					
	AN					

FOREIGN PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Country	Translation YES NO	
	AO	WO 99/66959	12/29/1999	PCT	X	
	AP	WO 00/35936	6/22/2000	PCT	X	
	AQ	WO 01/29217	4/26/2001	PCT	X	
	AR	WO 00/13706	3/16/2000	PCT	X	
	AS	WO 00/27868	5/18/2000	PCT	X	
	AT					
	AU					
	AV					
	AW					
	AX					

EXAMINER

DATE CONSIDERED